



**COURSE DETAILS**

**Units of Credit**                    6

**Contact hours**

14:00

Online (Bb Collaborate Ultra)

OR

Friday, 16:00 18:00

**Course Coordinator and Lecturer**

Divya J Nair  
email: divya.nair@unsw.edu.au  
office: H20, Level 1, Room 103

**Lecturer**

Mandi Thran  
email: m.thran@unsw.edu.au  
office: H20, Level 3, Room 313

**INFORMATION ABOUT THE COURSE**

This course is available to students in the Masters of Engineering 8621 program specialising in Civil or Environmental Engineering. In preparing your thesis topic in Thesis A for CVEN9050 you are able to select and nominate a Civil and/or Environmental Engineering topic that is of significant interest to you. Your topic may be associated with core elements such as Structural Design, Water and Hydraulics, Geotechnical Engineering, Transportation, Construction or Sustainability. Within Thesis A there are also project management elements that engineering professionals would be required to address and these elements will be incorporated as part of the Thesis A submission. This will enable all students to develop understanding of how their work impacts upon others and will allow them to identify the key communication pathways that are required to be addressed in the development of engineering solutions being offered. Consider the utility of your thesis topic in terms of your future career, either by re-inforcing and presenting your skills in a chosen field, or by experiencing and developing capabilities in a new area.

**The Thesis A theme topic for T2 -2020 will be improving the movement of people within and through the Parramatta CBD using Light Rail.**

Your thesis is a requirement for your degree, however it also presents an opportunity to explore areas of interest and demonstrate expertise when advancing in your  
As the course will involve several submissions throughout the term, Thesis A will be completed incrementally with guidance provided at each stage. Included in the lecture schedule will be several Guest Lecture slots who will add further knowledge and skills for students which will be needed

**HANDBOOK DESCRIPTION**

*See link to virtual handbook*

<https://www.handbook.unsw.edu.au/postgraduate/courses/2020/CVEN9050/>



After successfully completing this course, you should be able to:

Learning Outcome		EA Stage 1 Competencies
1.	<i>Undertake and execute self-contained applied research report.</i>	<i>PE1.4, PE3.2, PE3.5</i>
2.	<i>Ability to engage independent and reflective learning.</i>	<i>PE3.1, PE3.2, PE3.3, PE3.4</i>
3.	<i>In-depth engagement with the relevant disciplinary knowledge in its inter-disciplinary context.</i>	<i>PE1.3, PE2.3</i>
4.	<i>Develop the skills to locate, evaluate, and critically reflect upon specialist body of knowledge related to the thesis topic (Information Literacy and Scholarly Inquiry)</i>	<i>PE1.3, PE1.4, PE3.4</i>
5.	<i>Demonstrate oral and written communication in professional and lay domains.</i>	<i>PE1.5, PE3.2, PE3.3</i>
6.	<i>Apply scientific and engineering methods to solve an engineering problem.</i>	<i>PE2.1</i>
7.	<i>Ability to incorporate related social, political, environmental and economic issues within technical engineering-based solution options to community sensitive projects.</i>	<i>PE1.5, PE1.6, PE2.1, PE2.4, PE3.1, PE3.4</i>
8.	<i>Develop the capacity for analytical and critical thinking and for creative problem solving in an engineering context</i>	<i>PE1.2, PE2.2, PE2.3, PE2.4</i>

For each hour of contact it is expected that you will put in at least 1.5 hours of private study.

## COURSE PROGRAM

A table of lectures and workshops or practical class topics for each week, indicating the name of lecturer involved (where multiple lecturers teaching in course), online activities, such as discussion forums, and relevant readings from textbook and other reference material identified for the course.

### Term 2 2020

Date	Topic	Lecture Content	Demonstration Content
01/06/2020 (Week 1)	Course Introduction and Project Outline. (Divya Nair)	Outline of Thesis A assessment tasks and deadlines, review project guidelines.	Introduction Commence Assessment Task 1
08/06/2020 (Week 2)	Outline of Parramatta Precinct (Divya Nair)	Transport Modes Feasibility Studies and their Review	Student to define individual topics
15/06/2020 (Week 3)	Literature Review and Report Writing (Mandi Tthran)	Supply and Demand Development Construction Operations Community and Social Economics	Discussion on Assessment Task 1, Students to continue with topic
22/06/2020 (Week 4)	Engineering Economics (Guest & Divya Nair)	Access and Transport Corridors	Discussion on Assessment Task 2, Students to continue with topic
29/06/2020 (Week 5)	Integrated Transport Operations (Guest & Divya Nair)		Discussion on Assessment Task 2, Students to continue with topic
06/07/2020 (Week 6)		<i>Flexibility week for all courses (non-teaching)</i>	

13/07/2020  
(Week 7)

Project Discussion (Mandi  
Thran) Detailed material on selected  
topics  
C1 0 2 736.terial on selected

ASSESSMENT OVERVIEW
---------------------

The tables below are a guideline only. If you wish to create your own template, this is fine, however you must include all of the criteria below.

Item	Length	Weighting	Learning outcomes assessed	Assessment Criteria (this needs to explicitly describe what students are expected to demonstrate in the task)	Due date and submission requirements	Marks returned
<b>1. Proposal / Problem Statement</b>	Individual project statement (1 page)	5%	1, 2, 3	Initial submission and allocation of your chosen project, include why you are attempting to solve/investigate it and what your approach will be. Marks based on quality of writing and the robustness of the plan.	15 <sup>th</sup> June, Monday, 9AM (Week 3)	During Week 3 Workshop
<b>2. Literature Review</b>	Individual report (maximum 10 pages)	20%	1,2 3,4	Critical evaluation of key literature in your chosen topic. Your literature review should synthesize the available literature.		

## RELEVANT RESOURCES

- ◁ Textbook details, including title, author(s), publisher, edition, year of publication, ISBN and availability (in

